



Nuffield Design & Technology teaches students to design what they can make and then make what they have designed.

This booklet is part of the **Starting Nuffield Design & Technology Pack.**

It can be used in conjunction with the main course materials or as a teaching resource in its own right. You can find out about these in the Resources section of the website.

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Planning and Making

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Key words

planning

working out what you are going to do and when you are going to do it

flow chart

a way of planning how to carry out a task by drawing a sequence of boxes jointed by arrows; each box contains a statement about one stage

fabric

a word used to describe materials made from textiles

machine tool

a tool that uses an electric motor to drive the parts that cut the material

check list

a list to help you remember what you have to do

Making changes

What if you want to change your design after you've started making?



Don't worry.

This often happens.

- Check that it's really necessary.
- Check that it is a sensible change.
- Check that it won't take too long.

Then do it!

Planning

Once you have decided what you want to make you will need to plan what you are going to do. Use a flow chart, like the one below, to help you get your work done on time.



Use a check list to get your flow chart right.

- Make sure you have included all the stages.
- Check the time for each stage.
- Check to see if you can save any time by ...
 - ◆ using “waiting” time
 - ◆ doing things after school
 - ◆ doing things at home.

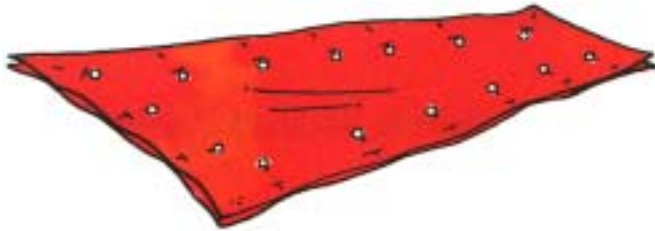
- Check that the machine is threaded up. Then ...
 - ◆ raise the presser foot
 - ◆ put the fabric in place
 - ◆ lower the needle into the fabric where you want to begin
 - ◆ lower the presser foot.
- Start to sew ...
 - ◆ push the fabric gently and smoothly through the machine
 - ◆ use the foot pedal to control the speed.



Using the sewing machine



- Press the fabric so that it lies flat.



- Pin the pieces together so that they stay together.
- Check that the spool and bobbin have cotton.



Making

When you are making your design it is very important to do things safely and properly.

Using the food processor



- Make sure you use the right blades.
- Make sure you push the food in at the right speed ...
 - ◆ too fast and the pieces are too big
 - ◆ too slow and the pieces are too small.

- Remember to clean the blades when you have finished.

- Take care, they are sharp!



- Remember to clean out the bowl and lid when you have finished.

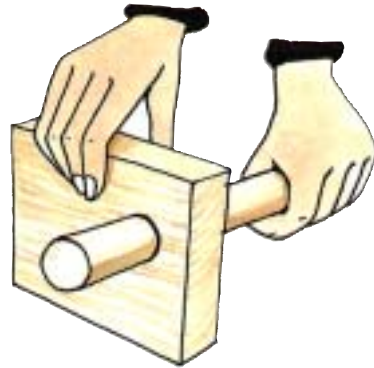
Cutting fabric



- Make sure the work surface is clean and clear.
- Press the fabric so that it lies flat.
- So that you know where to cut ...
 - ◆ mark it with tailor's chalk
 - ◆ or pin on a paper pattern.
- Cut slowly and smoothly following the line.
- Take care not to cut your fingers.

Fitting the parts together

- Check that you have all the parts.
- Lay them out to see how they all fit together.
- Push them together gently at first.
- Tap into place with a mallet if necessary.
- Make sure they fit together BEFORE you use any glue ...
 - ◆ take apart and put the glue where it is needed
 - ◆ put together again. Clamp the parts together if necessary
 - ◆ leave to dry in a safe place.

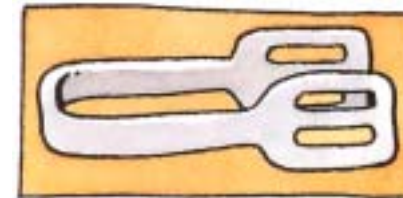


Using the oven

- Remember to switch the oven on early so that it's hot when you need it.
- Use oven gloves to take things out.



- Use tongs or a spatula to move the hot food onto a cooling tray.



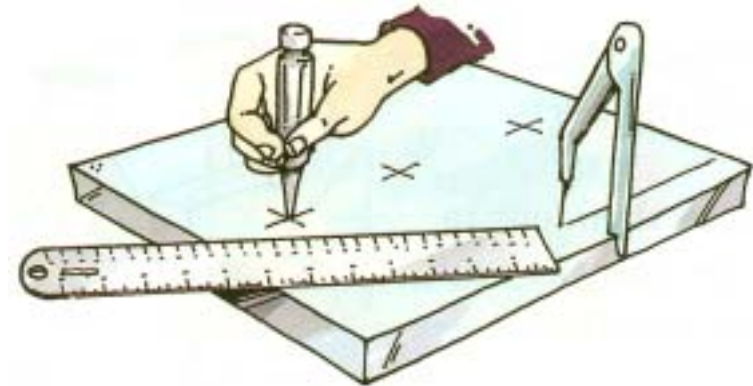
- Remember to switch the oven off when you have finished.

Using machine tools



- Wear goggles.
- Tie loose hair back.
- Hold the work securely — in a vice or chuck.

- Mark out as required.



- Ask your teacher to check the machine before you switch on.
- Switch on.
- Make sure the cutting tool moves smoothly into the material.
- Switch off.